

IN THE CLAIMS:

- 1-20 (cancelled).
21. (new) A differential cage for a differential gear, comprising:
a cage member with a cavity machined on an inside and having an
installation opening for compensating gears and driving gears; and
an axle drive gear and a parking lock gear which form a one-piece
forging together with the cage member.
22. (new) A differential cage of claim 21 wherein said cage member
has two bores to support respective axle driving shafts.
23. (new) A differential cage of claim 21 wherein said parking lock
gear is disposed at a side of the axle drive gear facing the cage member and
adjacent the same, the cage member being formed with said installation
opening being lateral, part of said lateral opening extending into the parking
lock gear for introducing said compensating gears and driving gears into the
cavity.
24. (new) A differential cage of claim 21 including aligned bores
having a common axis to accommodate a bearing pin for the compensating
gears, a spacing of the common axis from the axle drive gear being chosen
dependent on a desired size of said installation opening.
25. (new) A differential cage of claim 22 wherein one of said two
bores has a diameter which is great enough for a machining tool to be entered
into said cavity, and a separate bearing sleeve for the associated axle driving
shaft being received in said bore with said great enough diameter.

26. (new) A differential cage of claim 21 wherein teeth of said axle drive gear are induction hardened.

27. (new) A differential cage of claim 21 wherein teeth of said parking lock gear are induction hardened.

28. (new) A differential cage of claim 22 wherein one of the bores is larger than the other bore and a bearing sleeve is mounted in the larger bore for supporting the respective axle driving shaft.

29. (new) A differential cage of claim 28 wherein the bearing sleeve is press fit in the larger bore.

30. (new) A differential cage of claim 21 wherein teeth of the axle drive gear and parking lock gear are induction hardened by a dual frequency induction process.

31. (new) A method of making a differential cage for a differential gear, said differential cage comprising a cage member having a cavity machined on an inside surface, an installation opening for introduction, accommodation, and support of compensating gears and driving gears, and an axle drive gear and a parking lock gear, comprising the step of:

forging the cage member, the axle drive gear, and the parking lock gear from a single part.

32. (new) A method of claim 31 wherein the differential cage has two bores to support respective axle driving shafts.

33. (new) A method of claim 32 wherein a diameter of one of said bores is made greater than the other one, and said inside surface of the cavity is machined through the bore with the greater diameter, and a separate

bearing sleeve for support of the respective axle driving shaft is inserted into the bore with the greater diameter.

34. (new) A method of claim 31 wherein teeth of the axle drive shaft and/or teeth of the parking lock gear are induction hardened in a dual frequency induction process, the respective teeth being subjected to a high frequency and a medium frequency simultaneously in a dual frequency induction process, a frequency mix of the high frequency and the medium frequency being adjusted so that layers near a surface are heated substantially equally from a root of the tooth to a tip of the tooth.

35. (new) A method of claim 32 wherein one of the bores has a diameter greater than the other bore and a bearing sleeve is press fit into said bore with the greater diameter.

36. (new) A method of claim 31 wherein teeth of the axle drive shaft and parking lock gear are induction hardened.